

BMW · POWERTRAIN

P1340

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1340 · BMW

Multiple Cylinder Misfire During Start

P1340 on a BMW means the engine control module (DME) has detected misfires across multiple cylinders specifically during the cranking and initial start-up phase, not during normal running. The DME monitors crankshaft speed fluctuations immediately after key-on and flags this code when the combustion events are uneven before the engine settles into idle.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	BMW specific	Medium	Intermediate	Ignition system and misfire

Symptoms you may notice

- Extended cranking time before the engine fires, often with a rough, stumbling catch
- A brief shake or shudder immediately after start-up that smooths out within seconds
- The check engine light illuminated, sometimes accompanied by a rough-running or reduced-power message
- Hard starting when the engine is cold, especially in damp or cold weather
- Occasional no-start condition that clears after several attempts
- Often no symptoms besides the warning light if the misfire is brief and only during the first few combustion cycles

Common causes, most likely first

- Worn or fouled spark plugs with incorrect gap, especially on turbocharged BMW engines that are sensitive to plug condition
- Failing ignition coils that break down under the higher load of cold-start enrichment
- Intake system air leaks, such as a cracked valve cover breather hose or leaking intake boot, causing an uneven mixture during cranking
- Low fuel pressure from a weak in-tank fuel pump or a failing fuel pressure regulator that cannot prime adequately before start
- Carbon buildup on intake valves in direct-injection BMW engines, which disrupts cold-start mixture formation
- A weak or aging battery that drops voltage during cranking, causing the DME to lose clean synchronization with the camshaft and crankshaft sensors
- Camshaft or crankshaft position sensor signal irregularities during the first few revolutions



How to diagnose and fix it

- 1 Read all stored and pending fault codes with a BMW-capable scan tool and record freeze-frame data for P1340, then clear codes and attempt a cold start to see if the code returns immediately
- 2 Inspect the battery state of charge and cranking voltage; load-test the battery and check terminal condition, since low cranking voltage is a common trigger
- 3 Remove and inspect all spark plugs for fouling, wear, and correct gap; replace plugs if they are due or show electrode erosion
- 4 Perform a cold-start fuel pressure test and check that the fuel pump primes correctly at key-on; compare against BMW specifications
- 5 Smoke-test the intake system for vacuum leaks, paying close attention to the valve cover breather hoses and intake boots
- 6 Swap ignition coils between cylinders and recheck for misfire counters during start-up to isolate a weak coil
- 7 If the fault persists, perform a compression and cylinder leak-down test to rule out mechanical issues, and scope the camshaft and crankshaft sensor signals during cranking

Why cold-start misfires fool good technicians

- P1340 is often set by a marginal battery rather than a true ignition fault, because the DME sees erratic crankshaft speed during cranking when voltage sags and misinterprets it as multiple-cylinder misfire.
- A leaking injector or a fuel pump check valve that bleeds down overnight can cause a lean or flooded condition only on the first start, setting P1340 without any misfire during normal driving.
- Direct-injection BMW engines commonly develop intake valve carbon deposits that cause cold-start misfires long before they cause driveability complaints, so a misfire-free hot engine does not rule out carbon buildup.
- Technicians who replace all coils and plugs based on P1340 alone often miss a cracked valve cover breather hose that leans out the mixture only during the high-vacuum cranking phase.
- The code can be stored historically after a single low-voltage crank event, such as after a battery replacement or long storage, and may not indicate an ongoing mechanical fault.

Can I keep driving with P1340?

You can generally drive the car if it starts and runs smoothly after the initial stumble, but avoid repeated long cranking and have the fault diagnosed soon, because an unresolved cold-start misfire can damage the catalytic converter over time. If the engine struggles to start or runs rough continuously, limit driving to a short distance to a repair shop.



Tools that help

- BMW-capable OBD-II scan tool with live misfire counter and freeze-frame data
- Battery load tester and digital multimeter
- Fuel pressure gauge with BMW adapter fittings
- Smoke machine for intake leak detection
- Spark plug socket and gap gauge
- Compression tester or cylinder leak-down tester

Reading P1340

P Powertrain: engine, transmission and emissions.

1 Manufacturer-specific code (BMW): its meaning depends on the make.

3 Ignition system and misfire.

40 The exact fault within that area.

Often seen with

P1351 VVT Sensor Range Performance Problem Bank 2 · **P1351** Injection Sensor Circuit · **P1351** Ignition Diagnostic Monitor Signal Lost To PCM Or Out Of Ran · **P1351** Ignition Control Circuit Voltage High · **P1351** Ignition Diagnostic Monitor Circuit Input Fault · **P1351** IC Circuit High Voltage · **P1351** Misfire Cylinder 5 With Fuel Cut-off · **P0171** System Too Lean (Bank 1) · **P0300** Random/Multiple Cylinder Misfire Detected · **P0301** Cylinder 1 Misfire Detected · **P0302** Cylinder 2 Misfire Detected

See it working

Watch the animated explainer [Four-Stroke Engine Cutaway: Intake to Exhaust](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/bmw-p1340/>

